



Pioneer Energy Services

Microresistivity Log

API No.

15-109-21,886-00-00

Company **Murfin Drilling Company, Inc.**

Well **WWWMM 2 - 4**

Field

County **Logan**

State

Kansas

Location
**N2 S2 NE SE
1735' FSL & 660' FEL**

Sec: **4** Twp: **13 S** Rge: **32 W**

Other Services
CNL/CDL
DIL/BHCS

Permanent Datum Ground Level Elevation 3040
Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date **4/14/2013**

Run Number **Two**

Depth Driller **4780**

Depth Logger **4783**

Bottom Logged Interval **4782**

Top Log Interval **3650**

Casing Driller **8.625 @ 226**

Casing Logger **220**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity, ppm CL **2000**

Density / Viscosity **9.5 53**

pH / Fluid Loss **10.0 8.6**

Source of Sample	Flowline
Rm @ Meas. Temp	.50 @ 60
Rmf @ Meas. Temp	.38 @ 60
Rmc @ Meas. Temp	.68 @ 60
Source of Rmf / Rmc	Charts
Rm @ BHT	.24 @ 124
Operating Rig Time	5 1/2 Hours
Max Rec. Temp. F	124
Equipment Number	17
Location	Hays
Recorded By	D. Martin
Witnessed By	Steve Miller

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Thank you for using Log-Tech, Inc.
(785) 625-3858

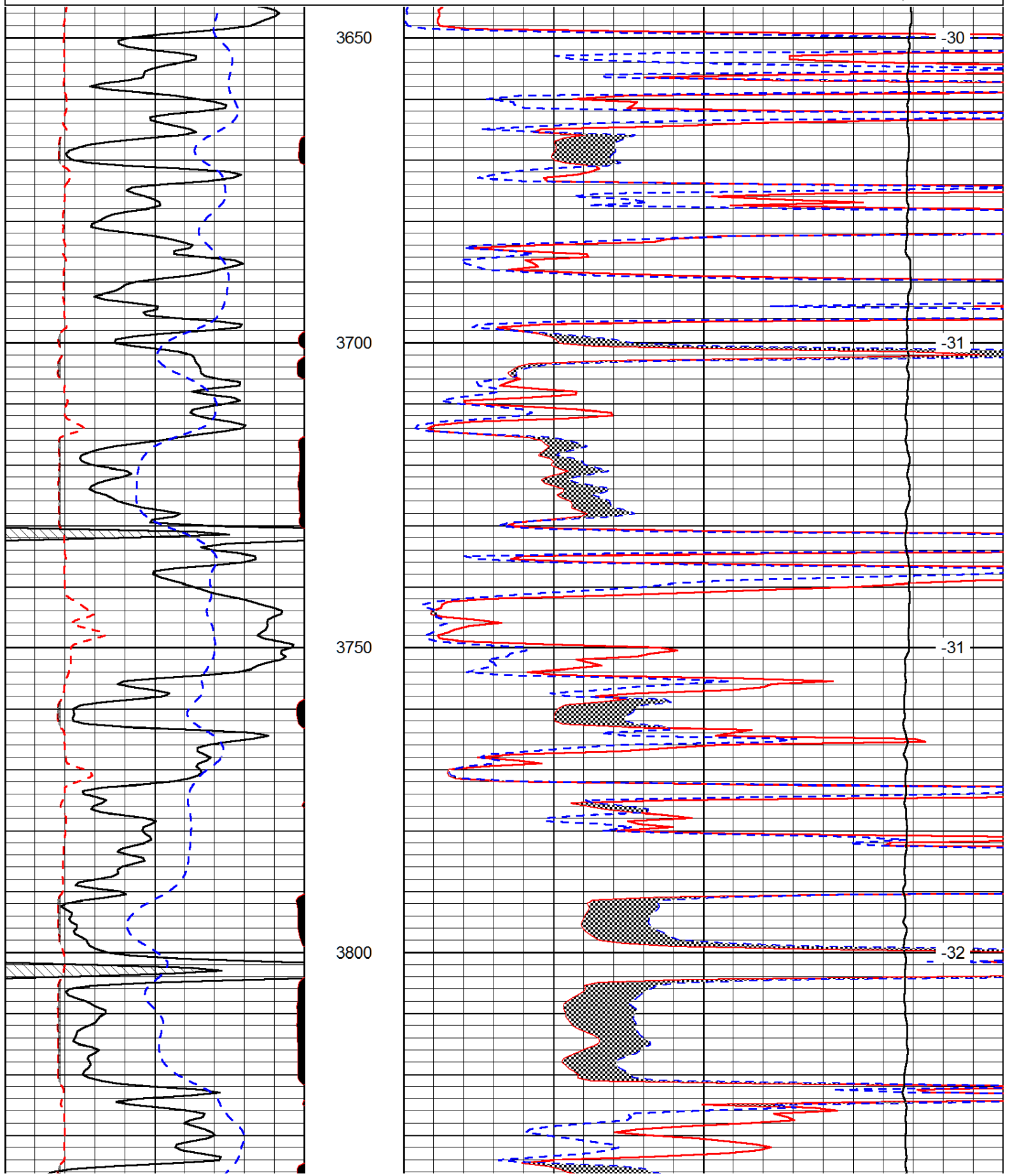
Oakley, KS
11 S to Seneca Rd.(Gove Rd.),
1 W, 3/4 S, W Into

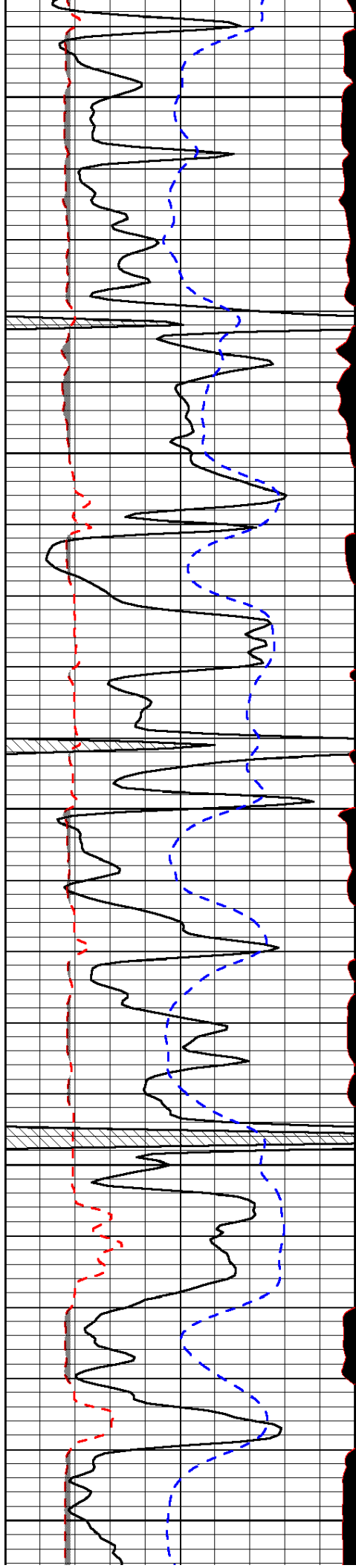
Database File: murfin_wwwm_2-4hd.db
Dataset Pathname: DIL/murfstk
Presentation Format: micro
Dataset Creation: Sun Apr 14 23:07:31 2013
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	Mud Cake (in)	7.875
-200	SP (mV)	0

0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

LSPD
(ft/min)





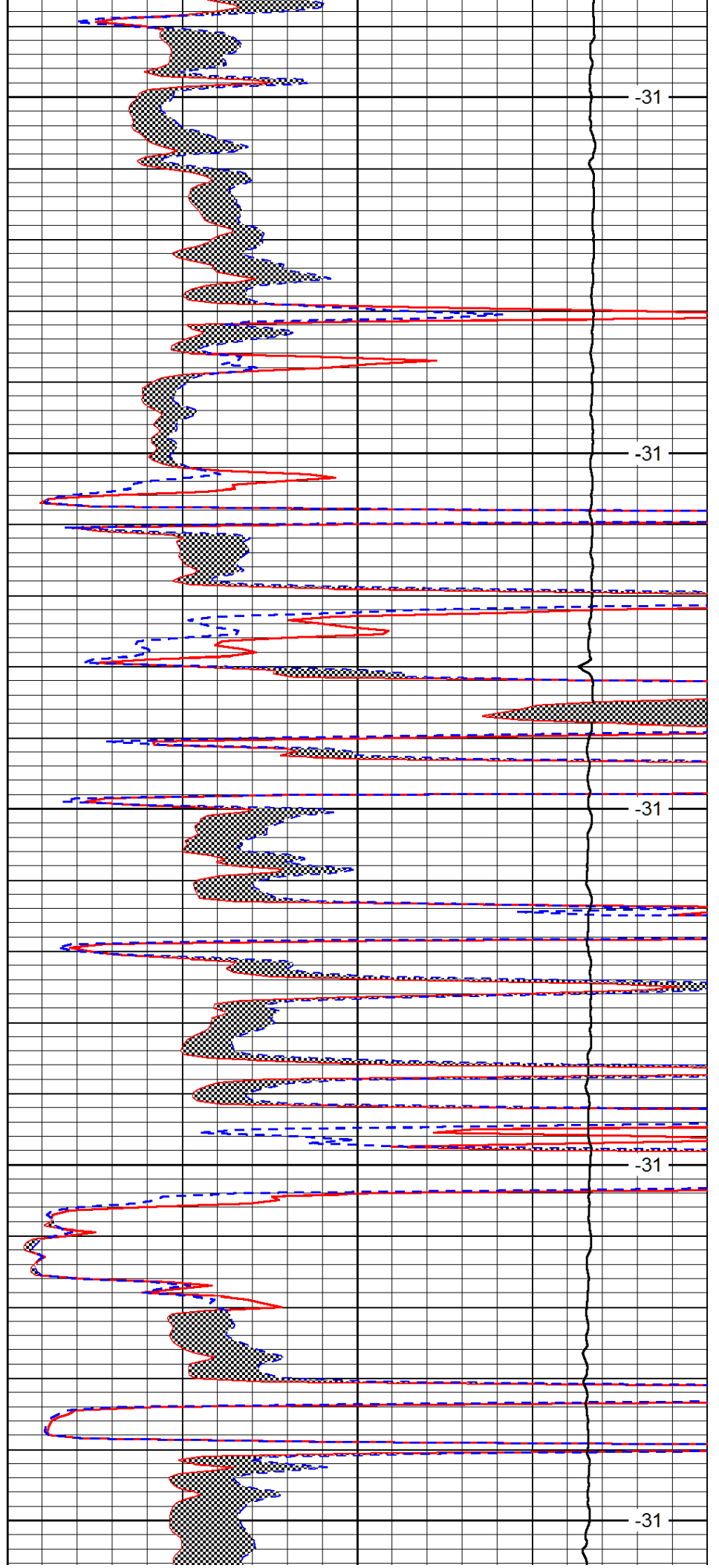
3850

3900

3950

4000

4050



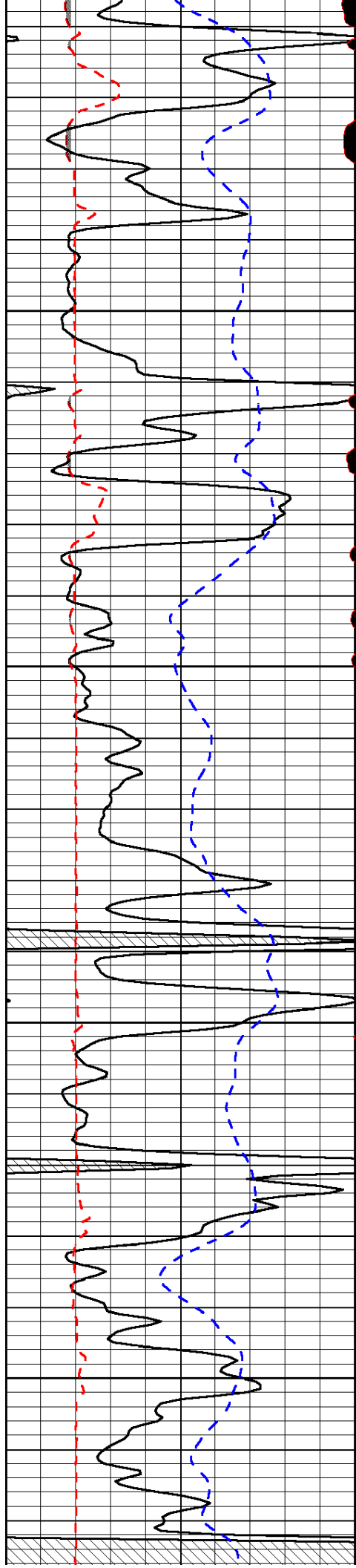
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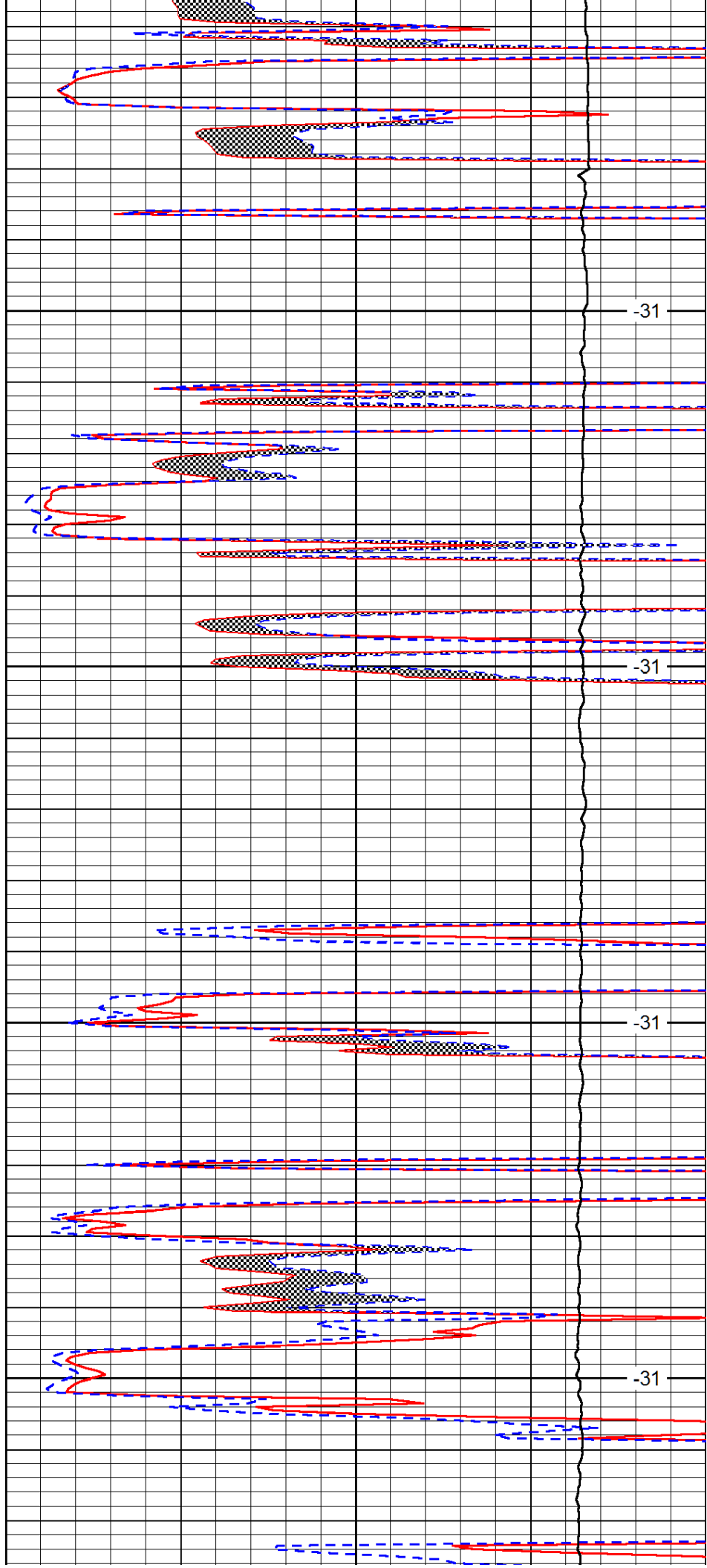


4100

4150

4200

4250

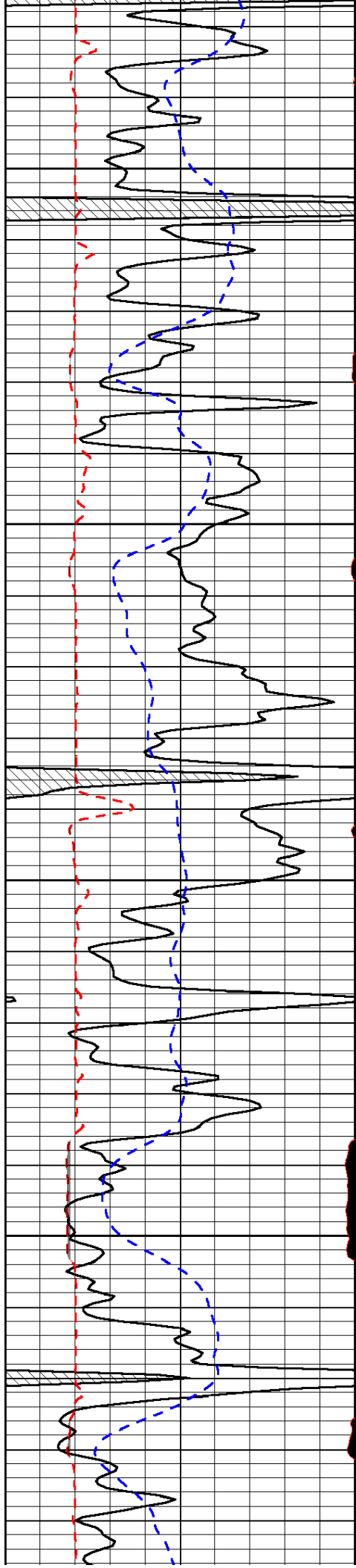


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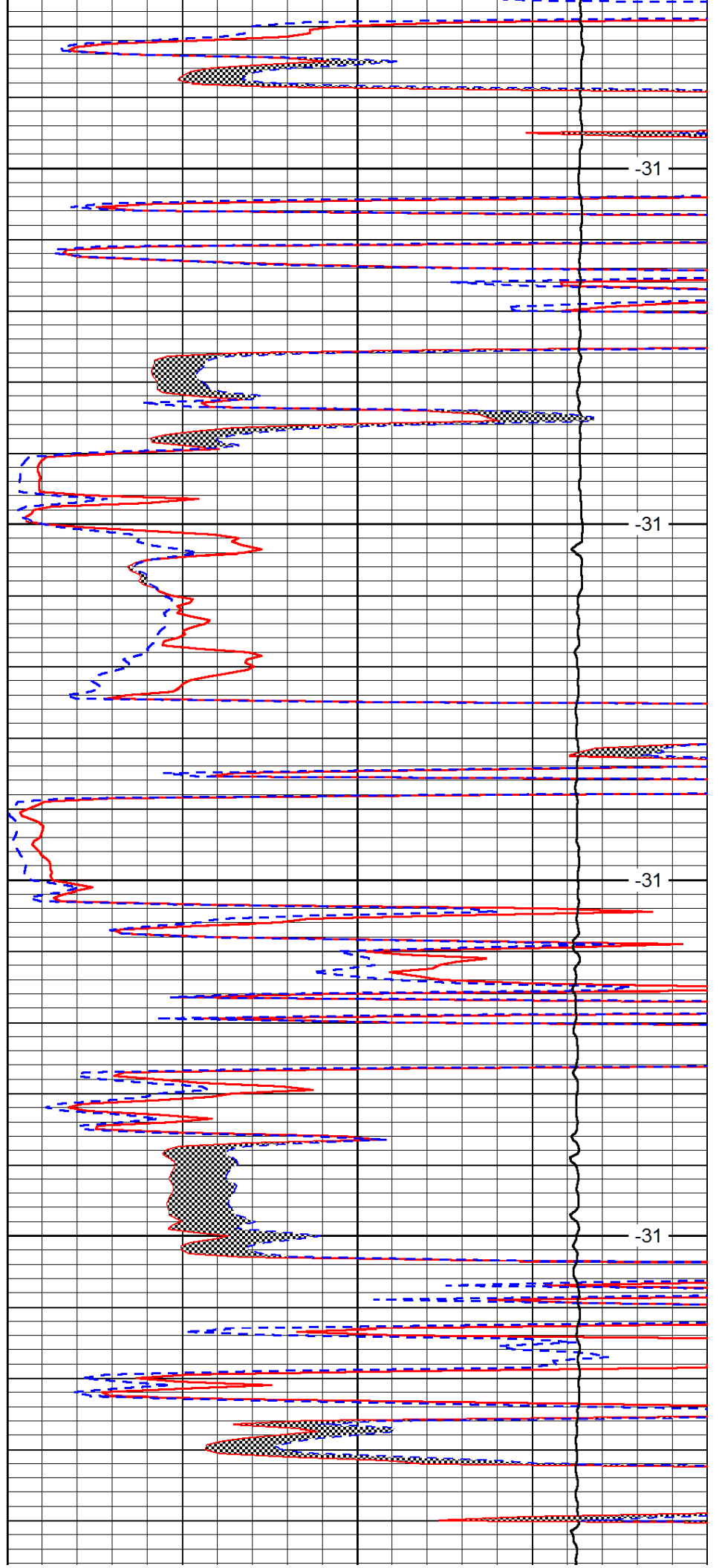


4300

4350

4400

4450

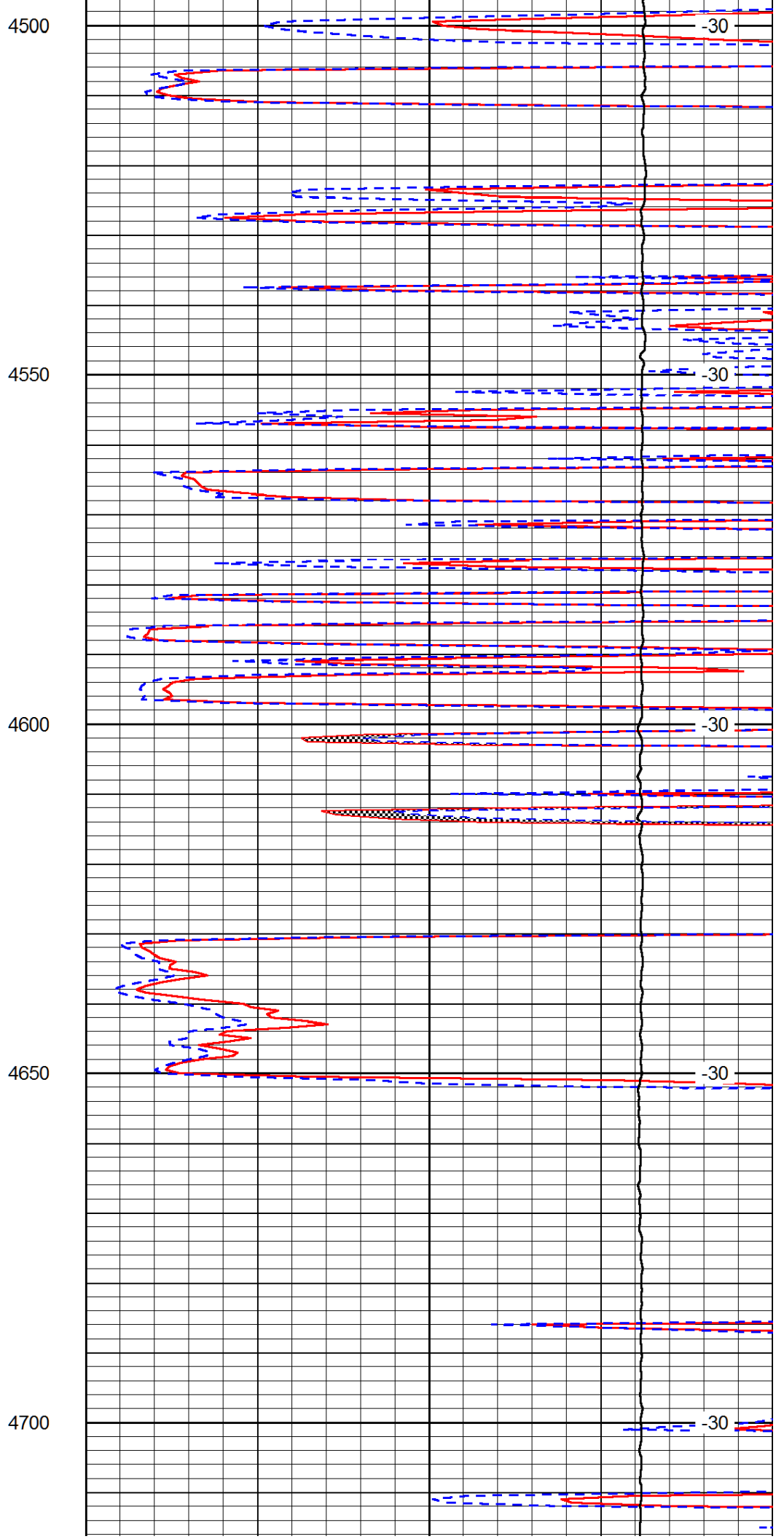
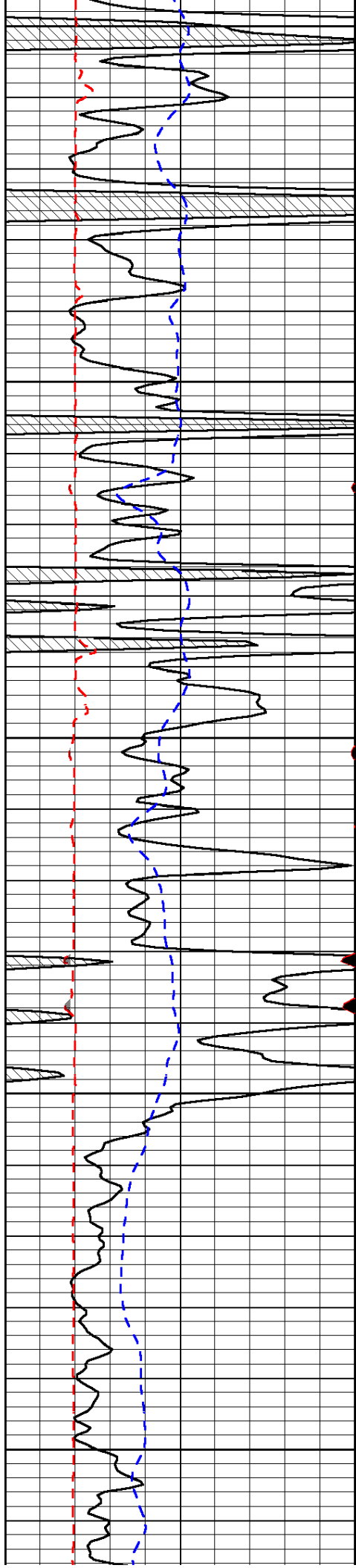


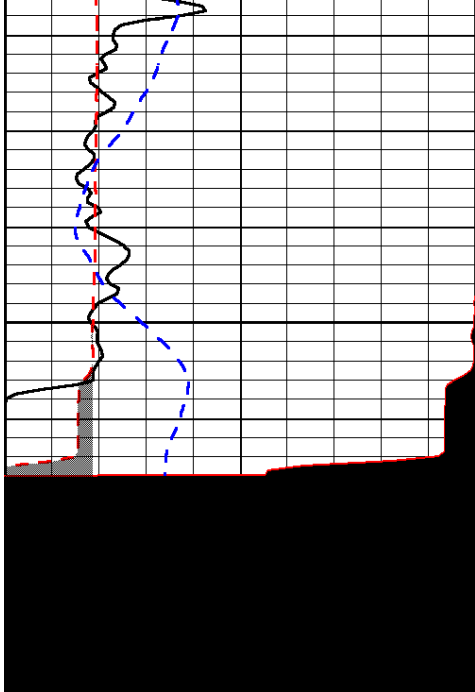
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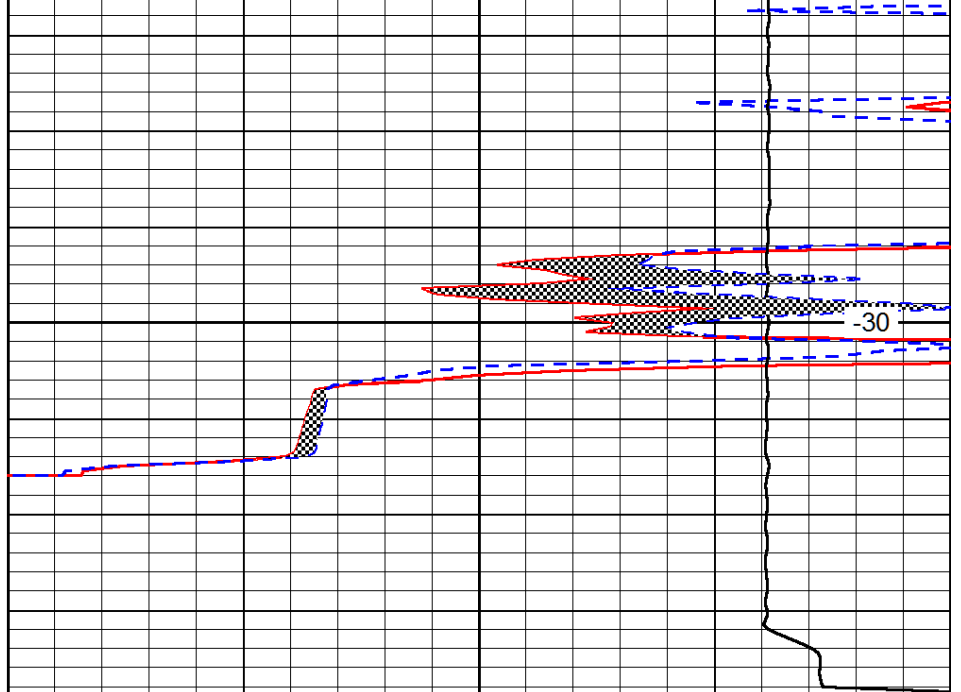
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